

ABSTRACT OF THE DISCLOSURE

A first group III nitride compound layer, which is formed on a substrate by a method not using metal organic compounds as raw materials, is heated in an atmosphere of a mixture gas containing a hydrogen or nitrogen gas and an ammonia gas, so that the crystallinity of a second group III nitride compound semiconductor layer formed on the first group III nitride compound layer is improved. When the first group III nitride compound layer is formed on a substrate by a sputtering method, the thickness of the first group III nitride compound layer is set to be in a range of from 50Å to 3000Å.